

# The Lowdown on Lactose Intolerance

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## Presenters

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## What's the Difference Between Lactose Intolerance and a Milk Allergy?

### Lactose Intolerance

- Sensitivity to milk sugar (lactose)
- Gastrointestinal (GI) response from an inadequate ability to digest lactose due to lack of lactase enzyme
- Rare in young children
- It is an individualized condition, meaning people may be able to enjoy milk and dairy foods once they find the management strategies that work for them

### Milk Allergy

- Reaction to milk protein (i.e., casein)
- Triggered by the immune system
- Generally impacts young children; may be outgrown by 2-3 years of age\*
- Individuals should **avoid milk and milk products** (unless allergy is outgrown)

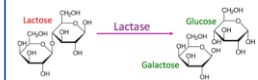
\*Nixey and Allen-Farwell

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## What is Lactose Intolerance?

"...In Lactose Intolerance, digestive symptoms are caused by lactose malabsorption—a condition in which your small intestine cannot digest, or break down, all the lactose you eat or drink..."

Most people with LI can consume some amount of lactose without having symptoms. Different people can tolerate different amounts of lactose before having symptoms. LI is different from a milk allergy. A milk allergy is an immune system disorder.\*



NIH National Institute of Diabetes and Digestive and Kidney Diseases

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## Prevalence of Lactose Intolerance

# 12%

Americans self-report  
lactose intolerance  
(rare in children)

- ~8% of European Americans
- ~10% of Hispanic Americans
- ~20% of African Americans

Nicola, T. et al. (2019). Prevalence of self-reported lactose intolerance in a Multiethnic Sample of Adults. *Nutrition Today*, 49, 232-237. 10.1016/j.nut.2019.03.004. The Nutrition Group, Inc. Understanding Dairy Sensitivity February 11, 2020.

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# 54%

Have not been  
diagnosed by  
a health professional

## National Medical Association & National Hispanic Medical Association: Consensus Statement on Lactose Intolerance

### NMA CONSENSUS STATEMENT

#### Lactose Intolerance and Health Disparities Among African Americans and Hispanic Americans: An Updated Consensus Statement

Bahn K, Bailey RD, MPH; Cavazos-Perez R, PhD, RD, PhD; Jaramilla-Estrada, PhD; Sussner  
Trujillo, PhD, MPH; Wooten-Pham, PhD; Spanish Consensus Group, PhD

"Milk and milk product intake is associated with better diet quality and has been associated with a reduced risk of chronic diseases or conditions including hypertension, cardiovascular disease, metabolic syndrome, Type 2 Diabetes and osteoporosis."

"Research indicates that those who consider themselves lactose intolerant may compromise dairy intake, which may leave them short on essential nutrient intake and more susceptible to some of the chronic diseases mentioned above."

"Public health authorities agree that for those with lactose intolerance, dairy food intake is not only possible, but also encouraged."

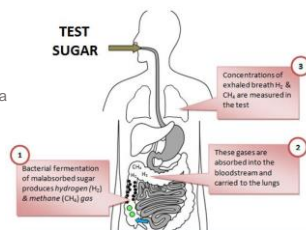
Bailey RD, et al. Lactose intolerance and health disparities among African Americans and Hispanic Americans: an updated consensus statement. *J Am Med Assoc*. 2021;325(12):1137.

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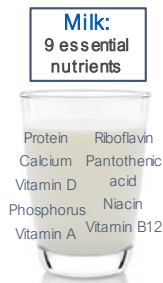
## Diagnosing Lactose Intolerance

Doctor/Immunologist:

- Measuring glucose levels in your blood post lactose consumption
- Hydrogen breath test
- Stool acid test (result from bacteria in large intestines breaking down lactose)



## People with Real or Perceived Lactose Intolerance May Not Need to Miss Out!



- Many people who are self-diagnosed or clinically diagnosed with lactose intolerance may avoid dairy
- Ideally, everyone would get a clinical diagnosis to ensure nothing else is causing their GI distress
- The good news is that avoidance may not be necessary once people learn which management strategies work for them

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## Nutrition in Pregnancy

- Eating well is one of the best things a mother can do during pregnancy
- Good nutrition helps support the growing fetus and maintain a healthy weight
- In a singleton pregnancy a mother will need to consume about 300 extra calories per day. This is equivalent to a glass of skim milk and half a sandwich.

<https://www.acog.org/patient-resources/faqs/pregnancy/nutrition-during-pregnancy>

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## Key Vitamins and minerals during pregnancy

- Calcium**
  - 1,300 mg daily for ages 14–18
  - 1,000 mg daily for ages 19–50
  - Builds strong bones and teeth
  - Sources: milk, cheese, yogurt, sardines, dark green leafy vegetables
- Vitamin D**
  - 600 IU daily
  - Builds strong bones, teeth, promotes healthy eyesight and skin
  - Sources: sunlight, fortified milk, fatty fish such as sardines and salmon
- Iodine**
  - 220 micrograms daily
  - Essential for healthy brain development
  - Sources: iodized table salt, dairy products, seafood, meat, eggs, and some breads
- Choline**
  - 450 mg daily
  - Essential for brain and spinal cord development
  - Sources: milk, beef liver, eggs, peanuts and soy products

<https://www.acog.org/patient-resources/faqs/pregnancy/nutrition-during-pregnancy>

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## Dairy Foods Provide a Powerful Nutrient-Package

### Cheese\*

6 essential nutrients

Protein  
Calcium  
Phosphorus  
Vitamin B12  
Niacin  
Vitamin A

### Milk:

9 essential nutrients

Protein Riboflavin  
Calcium Pantothenic acid  
Vitamin D Niacin  
Phosphorus Vitamin B12  
Vitamin A

### Yogurt:

7 essential nutrients

Protein  
Calcium  
Phosphorus  
Vitamin B12  
Pantothenic Acid  
Riboflavin  
Zinc

\*Nutrients based on USDA Database for Cheddar 3% B899

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## What is A2 Beta-Casein Milk?

- Same 9 essential nutrients
- Major difference is the type of protein
- Milk's high-quality protein is in the form of casein and whey
- Beta-casein is a common form of casein and it predominantly comes in 2 forms: A1 and A2
- Milk in the United States is usually an equal mix of A1 and A2
- Certain cow breeds provide mostly milk with A2 beta-casein (called "A2 milk") with little or no A1 beta-casein

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Regardless of the type of cows' milk you prefer, know that it will be nutrient-rich, safe and wholesome.

There is an option for everyone!



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## Milk & Water: Go-To Beverages for 1- 5 Year Olds



**HEALTHY DRINKS. HEALTHY KIDS.**

American Heart Association. **eat right.** Academy of Nutrition and Dietetics. American Academy of Pediatrics. **THE BIG AUTHORITY ON LITTLE KIDS.**

**13-24 MONTHS**  
It's time to add **whole milk**, which has many essential nutrients, along with plain drinking **water** for hydration. A small amount of juice is okay, but make sure it's 100% fruit juice to avoid added sugar. Better yet, serve small pieces of real fruit, which are even healthier.

**2-5 YEARS**  
**Milk and water** are the go-to beverages. Look for milks with less fat than whole milk, like skim (nonfat) or low fat (2%). If you choose to serve 100% fruit juice, stick to a small amount, and remember adding water can make it go a long way.

See the full guidelines and learn more at [HEALTHYDRINKSHEALTHYKIDS.ORG](http://HEALTHYDRINKSHEALTHYKIDS.ORG)

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### HEALTHY DRINKS. HEALTHY KIDS.

Plant-Based Dairy Alternatives:

*Not Recommended for Young Children as "Nutrient Content Varies Widely"*

See the full guidelines and learn more at [HEALTHYDRINKSHEALTHYKIDS.ORG](http://HEALTHYDRINKSHEALTHYKIDS.ORG)

**HEALTHY DRINKS. HEALTHY KIDS.**

**Healthy Beverage Consumption in Early Childhood**  
Recommendations for Young Children's Health and Nutrition Organization

**plant-based, non-dairy milks**

**Healthy Drinks, Healthy Kids**  
Recommendations for Young Children's Health and Nutrition Organization

**What are plant-based, non-dairy milks?**  
Plant-based, non-dairy milks are made from a variety of plant sources, including soy, almond, oat, and coconut. They are often fortified with vitamins and minerals to make them more similar to dairy milk.

**Why aren't these products recommended for young children?**  
Plant-based, non-dairy milks are not recommended for young children because they do not contain the same nutrients as dairy milk. They are often lower in protein and calcium, and may contain added sugars or other ingredients that are not healthy for young children.

Thanks for using! Visit [HealthyDrinksHealthyKids.org](http://HealthyDrinksHealthyKids.org)

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## Dairy Advantage

- Nutritionally complete: Nine essential nutrients, including amino acids; highly digestible
- Designed to solubilize and deliver calcium and phosphate
- Milk has a clean label and is consumer friendly
- Milk and whey protein isolates are minimally processed and consumer friendly relative to plant protein isolates

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## Solutions for People with Lactose Intolerance

Test and tailor to find for what works for them



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## Tips to Manage Lactose Intolerance

Dairy Food	Serving Size	Lactose Grams	Helpful Hints
Cow's Milk	8 oz	12g	Try small amounts of milk in smoothies, on cereal or with meals. Having milk with solid food helps slow digestion which can mean better tolerance
Lactose-free cow's milk	8 oz	0g	Lactose-free cow's milk is real milk – just without the lactose
Yogurt	6-8 oz	12-16g	Yogurt's live and active cultures help digest lactose, which can make it easier to tolerate
Greek Yogurt	6-8 oz	6-8g	There is less lactose in Greek yogurt because the straining process removes some of the lactose
Natural Cheese	1.5 oz	<1g	Due to the steps in cheese making and natural aging, natural cheese contains minimal amounts of lactose
American Cheese	2 oz	1.25g	American cheese, which is made from natural cheese, does not contain much lactose
Cottage Cheese	½ c	3g	Smaller amounts of cottage cheese do not contain much lactose
Ricotta Cheese	½ c	<1.6g	Ricotta cheese – a soft, natural cheese can contain minimal amounts of lactose
Ice Cream	½ c	14g	There are lactose-free cow's ice cream's available
Cream	1 Tbsp	<1g	Cream for coffee has minimal lactose

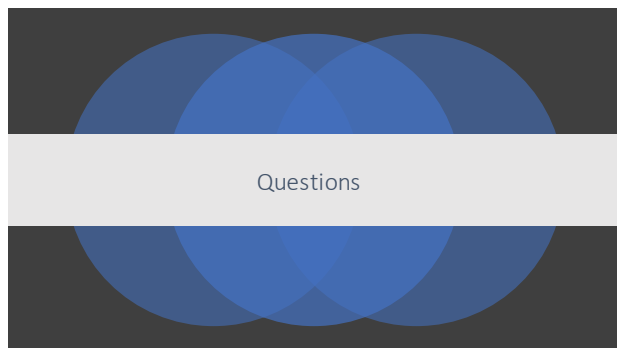
<https://www.nid.nih.gov/health-topics/digestive-conditions/lactose-intolerance/>

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## Helpful Reminders

- Lactose intolerance is an individualized condition, the good news is there are dairy based solutions that can be tailored to meet most people's needs
- NIH Consensus found most people who have trouble digesting lactose can tolerate ~12 grams at one time (that's as much as a cup of milk)
  - Start slowly with regular milk in cereal or a small amount at meals and build tolerance level back up
- Lactose-free milk is real cow's milk. It provides the same 9 nutrients, just without the lactose
- Most hard, natural cheese contain minimal lactose
- Yogurt's live and active cultures help digest lactose. Greek and Icelandic yogurt have less lactose due to the straining process
- Butter and cream have trace to no lactose

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